

### Summative quiz topic 2 cells

- 1- B
  - 2- B
  - 3- D
  - 4- B
  - 5- (a) Plant and animal cells have cytoplasm, cell membrane, nucleus and chromosomes.  
(b) Only plant cells have a cell wall, central vacuole and cell sap.
  - 6- Specialized/adapted/impulses/shape/cytoplasm/tissue
  - 7- Cell structure/organ/cell structure/tissue/organ/system
  - 8-  $M = I/A = 88\text{mm}/24\text{mm} = 2$
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### Grade 9 quiz on diffusion

I-

- a. A
- b. C
- c. E
- d. B
- e. A

II-

1. Dilute solutions contain much more solvent (such as water) than concentrated solutions
  2. Solute is dissolved in the solvent
  3. Sugar solution/ salt solution/ vimto ;)
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### Biology 9 – into and out of cells – Review Worksheet

Part A:

- a- Controls what goes in and out of cell
- b- Is the movement of particles from high to low concentration down a concentration gradient
- c- A mixture where the solute is distributed evenly through the solvent
- d- The dissolved substance in a solution
- e- The substance where the solute is dissolved in to form a solution
- f- X
- g- X
- h- Solution containing more solvent (such as water) than a concentrated solution (which has more solute).
- i- Solution which has more solute than solvent
- j- A solution which has the same concentration as another solution
- k- A solution which has more solute than solvent in comparison to another solution
- l- A solution which has less solute more solvent in comparison with another solution
- m- Shrinking of the cytoplasm away from the cell wall due to loss of water
- n- Cell swollen due to water entering cell
- o- Bursting of red blood cell due to water entering cell

- p- Special type of diffusion of water from a region of high water concentration to a region of low concentration through a partially permeable membrane
- q- A specialized vacuole
- r- A membrane that will select what comes in and out of cells
- s- A membrane will allow substances to flow in and out (no selection)

#### Part B

- 1- High/low
- 2- Water
- 3- A. Solution greater than 0.01% sugar ///B. solution less than 0.01% sugar
- 4- A. burst// B. shrink
- 5- Plant/hypotonic
- 6- x
- 7- x
- 8- x
- 9- solid/liquid/gas
- 10-solute/solvent
- 11-weak solution (has more water) / strong solution/ partially permeable
- 12-cell wall
- 13-cell membrane

#### chapter 3 quiz – movement in and out of cells

- 1- (a) i- Y to X / ii- 0.5 g/L (b) glucose is too large to pass through membrane (c) active transport requires energy whereas diffusion doesn't
- 2- the light color is the dilute so an arrow from the light color to the dark color and dark color water level will rise
- 3- (a) (i)Special type of diffusion of water from a region of high water concentration to a region of low concentration through a partially permeable membrane //// (ii) 1- diffusion can involve particles of liquid and gas but osmosis has to be water 2- osmosis requires partially permeable membrane and diffusion doesn't  
(b) (i) water concentration in root hair cells is less than what is in the soil so water will move from the soil to root hair cells through partially permeable membrane////  
(ii) soil will now have less water since they have been drowned by salt water and therefore water will leave the cell into the soil. The cells will shrink and plant will wilt or die
- 4- Concentrations of nitrate and magnesium ions are higher in the cell than in the soil but they still need them. So they move from regions of low concentration to a region of high concentration against the concentration gradient by using energy.